

Philomycus carolinianus (Bosc). Under leaves and logs in the hardwoods. Only immature specimens were found.

Succinea ovalis Say. Found below the bluffs near the East End Cottages. They were large, elongated, and of a pinkish hue.

TWO NEW RACES AND A NEW SPECIES OF HELISOMA
FROM CALIFORNIA

BY FRANK C. BAKER

HELISOMA OCCIDENTALE DEPRESSUM, var. nov.

Shell differing from typical *occidentale* in being of less axial height, the whorls more tightly coiled, three turns visible on the umbilical side, which is less deeply excavated, the body whorl less voluminous. Color greenish horn. Whorls $4\frac{1}{2}$.

Height 9.0 mm., diam, 20.0 mm.; aperture height 8.5 mm., diam. 6.7 mm. Holotype 3239.

Height 10.0 mm., diam. 19.5 mm.; aperture height 9.0 mm., diam. 6.6 mm. Paratype 3240.

Height 9.9 mm., diam. 18.5 mm.; aperture height 9.0 mm., diam. 6.0 mm. Paratype 3240.

Height 12.0 mm., diam. 25.0 mm.; aperture height 11.5 mm., diam. 7.9 mm. *Occidentale*.

Type locality: Lower Klamath Lake, Oregon and California. Collected by Junius Henderson. *Types*: Baker Coll.: Nos. 3239, 3240.

This race is apparently distributed in Oregon and northern California and has been identified as *occidentalis*, *ammon*, and *binneyi*, from all of which it is quite distinct.

HELISOMA TENUE CALIFORNIENSE, var. nov.

Shell differing from typical *tenu*e in its larger size, wider whorls, more depressed and flatter spire whorls, umbilical whorls coiled in same plane, sculpture coarse, the space between the riblets several times the width of the riblets; color usually greenish horn.

Height 10.0 mm., gr. diam. 21.5 mm., less. diam. 17.4 mm.; aperture height 9.0 mm., diam. 6.9 mm. Holotype.

Height 9.6 mm., gr. diam. 18.6 mm., less. diam. 15.3 mm.; aperture height 9.0 mm., diam. 5.4 mm. Paratype.

Height 9.0 mm., gr. diam. 17.6 mm., less. diam. 14.0 mm.; aperture height 8.0 mm., diam. 5.3 mm. Paratype.

Type locality: Ponds in bed of Guadalupe Creek, San Jose, Santa Clara Co., California. Collected by Mr. Clark Hubbs. *Holotype*: Leland Stanford University, No. 5853. *Paratypes*: Collection F. C. Baker, No. 3262.

This large *Helisoma* has been identified as *occidentalis*, *tenuis* and *trivolvus*. It somewhat resembles *H. o. depressum*, differing in its less deeply excavated umbilical region, more rapidly enlarging body whorl and decidedly ear-shaped aperture, that of *depressum* being rounded or moon-shaped. This race is widely distributed in California from Santa Clara County southward. *Helisoma tenue* is widely distributed in California and does not differ materially from the species as found in Mexico and Arizona.

HELISOMA HEMPHILLI F. C. Baker and J. Henderson.

Shell with four rapidly enlarging whorls, the body whorl disproportionately enlarged near the aperture; spire whorls flat the body whorl slightly raised above the general level and with a sharp, somewhat pinched carina extending to the aperture; base showing a trifle more than two full whorls, the umbilicus narrow and deep, the last whorl with a distinct carina; sculpture coarse, the riblets cord-like and widely spaced; aperture distinctly auriform, much narrowed and V-shaped above, wide and but slightly concave below; there is a slight callus on the parietal wall; color yellowish to dark horn, often shining or polished.

Height 9.5 mm., diam. 16.5 mm.; aperture height 9.0 mm., diam. 6.2 mm. Holotype.

Height 8.3 mm., diam. 14.0 mm.; aperture height 8.0 mm., diam. 5.0 mm. Paratype.

Height 7.6 mm., diam. 6.8 mm.; aperture height 6.8 mm., diam. 5.6 mm. Paratype.

Type locality: Mountain Lake, San Francisco, Calif. Collected by H. Hemphill. *Types and paratypes*: Leland Stanford University. *Paratypes*: Coll. F. C. Baker, No. 3288.

This *Helisoma* is distinguished by its strongly carinated body whorl, strong rib-costate sculpture and distinctly auriform aperture. Its greater axial height, strong carinae on body whorl, marked sculpture, and form of aperture dis-

tinguish it from any form of *tenuis*. *Binneyi* is larger with much heavier sculpture, *ammon* is also larger with comparatively finer sculpture, more whorls, and deeper and wider umbilical region. The new species has been seen only from Mountain Lake where it appears to have been abundant.

A NEW SUBSPECIES OF *OLIVA RETICULARIS* FROM
SOUTHERN FLORIDA

BY WILLIAM J. CLENCH

OLIVA RETICULARIS BOLLINGI, subsp. nov. Pl. 7, figs. 3, 4.

Description: Shell solid, heavy, polished, and widest at a little above the mid-region. Ground color white to pale ivory, covered with innumerable tent-like, reddish-brown checks, their apices directed both away and towards the aperture in the conventional apertural view. These checks are more or less organized in an axial arrangement. This secondary reddish-brown coloration is not always finely drawn on the checks themselves, but dispersed sufficiently between the checks to render a slight reddish-brown cast to the shells. The single paratype has the mid-region of the body whorl somewhat cleared of these checks, forming a band. Along and below the suture the pattern changes to small blocks of thread-like lines arranged axially. These are to be noted on all but the nuclear whorls. Whorls seven, compact, and broadly convex. Spire somewhat produced and conic. Palatal lip rather thick. Parietal walls calloused and supporting a series of small plications throughout its length. Aperture long and narrow. Sculpture of smooth growth ridges, visible only in high-lighted areas. Suture slightly indented. Holotype, length 61.5 mm., width 28 mm.; paratype, length 56.2 mm., width 24.1 mm.

Holotype: M. C. Z. 76656, found in crab-traps off Miami, Florida, in about 200 feet of water. Paratype, M. C. Z. 76657, same data.

Remarks: This new subspecies differs quite noticeably from the typical form. It is a much larger and proportionately heavier shell, the color markings are stronger, and the ground color is not as white or creamy. It is named for Mr.